## **Pacific Salmon Treaty**



### Introduction

Adult salmon returning to most western Washington streams migrate through both U.S. and Canadian waters, and are harvested by fishermen from both countries. For decades, there were no restrictions on the interception of returning salmon by fishermen of neighboring countries. Conservation goals and the right of each nation to reap the benefits of its own fisheries enhancement and restoration efforts were severely undermined as a result.

In 1985, after two decades of discussions, the Pacific Salmon Treaty (PST) was created through the cooperative efforts of the tribes, state governments, U.S. and Canadian governments, and sport and commercial fishing interests.

The Pacific Salmon Commission (PSC) was created by the United States and Canada to implement the treaty, which was updated in 1999. The PSC establishes fishery and allocation regimes, develops management recommendations and is the countries' forum to reach agreement on mutual fisheries issues. An eight-member bilateral body that includes representatives of tribal, state and federal governments governs the PSC. Four regional panels composed of fisheries managers and industry representatives

advise the PSC on policy matters. Technical support for both the Commission and Panels come from four technical committees, which are species specific in focus.

As co-managers of the fishery resources in western Washington, tribal implementation of the PST is critical to achieve the shared goals of the PST in protecting, sharing and restoring salmon resources. In addition to serving at the policy level on the PSC and its panels, tribal representatives also participate on the many committees and work groups that provide technical support to implement the treaty.

### **Policy and Process**

Successful implementation of the PST requires the tribes to develop, whenever possible, a unified position on issues addressed by the PSC. The treaty provides for tribal policy representation at all levels of the PSC structure. The western Washington tribes are fully engaged in PST implementation and process activities. Timely policy coordination between the tribes and the other U.S. PSC representatives is essential. This coordination and communication affords the U.S. Section and U.S. PSC representatives the flexibility necessary to be effective and efficient negotiators within the bilateral process.

Staff from the Northwest Indian Fisheries Commission, a support service organization of the treaty tribes, facilitate inter-tribal and inter-agency meetings, develop issue papers and analysis of strategies and negotiation options, and provide technical advice to the tribes and tribal PSC representatives. An extensive amount of time is devoted to ensure the tribes and their policy representatives are informed on the issues affected by the PST implementation process.



An adult sockeye salmon returns to spawn.

An NWIFC policy analyst serves as the "shadow" for PSC Commissioner Wm. "Ron" Allen, assisting him with policy issues pertaining to the PSC process. The policy analyst also prepares meeting announcements, briefing reports on key issues and other materials to keep concerned tribes informed.

#### **Technical Implementation**

NWIFC staff played key roles in the implementation of the Pacific Salmon Treaty in FY 05 through their involvement on several committees and working groups within the PSC structure. Staff held positions as U.S. chair of the Fraser Panel Technical Committee, and co-chair of the Joint Chum Technical Committee. Staff served on several other committees and working groups, including the Chinook Technical Committee, the Selective Fishery Evaluation Committee, the Coho Technical Committee, and the Working Groups on Mark-Recovery Statistics and Data Standards.

# Research Projects And Data Gathering

Fisheries research is an integral part of treaty implementation. The treaty tribes have designated a substantial portion of their PST funding to conduct the necessary research, data collection, and fishery monitoring activities needed to manage salmon fisheries in the context of the PST.

# **Indicator Stock Tagging And Recovery Projects**

## Hatchery Indicator Stock Tagging and Recovery Program

This program is responsible for tagging the tribal hatchery salmon stocks that are part of the coast wide PST chinook and coho exploitation indicator stock program. The intent of the program is to ensure that each wild or hatchery production stock grouping has a representative hatchery stock that is being coded wire tagged (CWT). Subsequent tag recovery information allows the PSC chinook and coho technical committees to develop fishery statistics

used to monitor and evaluate the impact of fisheries on wild stocks and evaluate rebuilding programs. More than 2 million fish (1,530,000 chinook and 640,000 coho) from 11 tribal hatcheries are annually tagged for the program. This includes six chinook stocks and eight coho stocks.

#### **Wild Indicator Stock Studies**

Four of the chinook tag groups are derived from wild brood-stocking efforts. Since wild chinook smolts are too sensitive to capture and tag, the intent is to mark a group that represents wild fish to the best extent possible. In these studies, wild adult chinook spawners are captured and brought into a hatchery for spawning. The subsequent progeny are incubated, reared, and coded wire tagged. After tagging, the fish are transferred to an imprinting pond adjacent the native river, where the fish are released at a size and time consistent with the wild chinook migration. Indicator stock programs include:

- Skagit River Summer Chinook Indicator Stock Study (Skagit System Cooperative)
- Stillaguamish River Native Chinook Indicator Stock Study (Stillaguamish Tribe)
- Hoko River Fall Chinook Indicator Stock Study (Makah Tribe)
- Queets River Wild Fall Chinook Indicator Stock Study (Quinault Indian Nation)

All of these projects include spawning surveys to estimate escapement and recover CWTs.

One wild coho indicator stock study is conducted by the Quinault Indian Nation. Queets River wild coho smolts are annually captured and tagged to provide an indicator stock of naturally produced coho salmon from the north Washington coast.

### **Tribal Projects**

#### **Stock Restoration Studies**

Skagit River Chinook Restoration Project (Skagit River System Cooperative: Swinomish and Sauk-Suiattle Tribes)

Dungeness Chinook Evaluation And Strait Of Juan de Fuca Fishery Analysis (Jamestown S'Klallam Tribe)

#### Natural Production And Habitat Assessment Studies

Natural Production Of Coho Smolts In The Queets River (Quinault Indian Nation)

South Puget Sound Coho Production Investigation (Squaxin Island Tribe)

Nooksack River Salmon Smolt Production Study (Lummi And Nooksack Tribes)

Quillayute River Natural Coho Production Study (Quileute Tribe)

Puyallup River Juvenile Salmon Production Assessment (Puyallup Tribe of Indians)

Development Of Hoh River Fish Habitat Condition Strata (Hoh Tribe)

Analysis of Stillaguamish Estuary Use By Juvenile Chinook (Stillaguamish Tribe)

#### Spawning Escapement Evaluation Studies

Nooksack River Chinook Escapement Study (Nooksack Tribe)

East Kitsap Coho Escapement Study (Suquamish Tribe)

Hatchery Chinook Straying In The Nisqually Basin (Nisqually Tribe)

Chinook Spawner Surveys In Lake Washington/Green River Basins (Muckleshoot Tribe)

Estimate Of Total Natural Coho Spawning Escapement In Strait Of Juan de Fuca Streams (Makah Tribe and Lower Elwha Klallam Tribe)

### **Fishery Monitoring Projects**

Improvement Of Stillaguamish/Snohomish Terminal Area Coho And Chum Salmon Management (Tulalip Tribes)

Monitoring And Sampling Of Hood Canal Commercial Coho Fisheries (Skokomish Tribe)

Research, Management, And Enhancement of Pacific Salmon Treaty Stocks (Port Gamble S'Klallam Tribe)

#### **Habitat Improvement Projects**

Stillaguamish Culvert Analysis And Repair (Stillaguamish Tribe)

### **Assessing Effectiveness Of Habitat Improvements**

Using a smolt trap – a safe and effective device for catching and counting young fish – the Puyallup Tribe of Indians is assessing the success of recent habitat improvement on the Puyallup River.

Last summer the South Puget Sound Salmon Enhancement Group, in cooperation with the tribe, reconnected off-channel habitat with the mainstem Puyallup River. "That project was designed to give juvenile salmon additional habitat," said Russ Ladley, resource protection manager for the Puyallup Tribe. "The smolt trap captures out-migrating juvenile salmon. Increased numbers of smolts can tell us if our habitat improvements are working." The project is funded through the Pacific Salmon Treaty.

Recovering weak salmon populations is a primary focus of the Puyallup Tribe. Chinook salmon in the Puyallup and White Rivers are part of the Puget Sound population listed as "threatened" under the federal Endangered Species Act. "The more information we have on salmon populations, the better job we can do to focus our efforts on recovering weak runs," said Ladley.

The trap, which the tribe has operated for five years, is checked twice a day by tribal staff. After counting and measuring each young salmon, they are released back into the river. Smolt comes from the word "smoltification;" the term to describe the physiological transformation that young salmon undergo in fresh water, just before migrating downstream and entering salt water.

In addition to assessing salmon recovery efforts across the watershed, the trap also helps the tribe plan salmon fishing seasons



Andrew Berger and Kristin Williamson, Puyallup tribal biologists, check a smolt trap on the mainstem Puyallup River.

with their state co-managers. "The data from the trap gives us an early picture of what returns will be like in future years," said Chris Phinney, harvest biologist for the Puyallup Tribe.